

Amendments To The Claims

This listing of the claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A synthetic nucleic acid which has a sequence comprising 10-30 consisting of from about 10 to about 30 consecutive nucleotides of SEQ ID NO:1, at least one of the following:
  - a) the N region of the SARS-associated corona virus genome; and
  - b) the 3' non-coding region of the SARS-associated corona virus genome.
2. (Currently amended) A composition comprising one or more of the synthetic nucleic acid sequence of claim 1.
3. (Currently Amended) A method for determining the presence or absence of SARS-associated corona virus in a biological sample which comprises utilizing the synthetic nucleic acid sequence of claim 1 in a kit, the method comprising:
  - a) contacting nucleic acid from a biological sample with at least one primer which is a nucleic acid of claim 1,
  - b) subjecting the nucleic acid and the primer to amplification conditions, and
  - c) determining the presence or absence of amplification product, wherein the presence of amplification product indicates the presence of RNA associated with corona virus in the sample.
4. (Currently Amended) A synthetic nucleic acid which has a sequence comprising 10-30 consisting of from about 10 to about 30 consecutive nucleotides of a nucleic acid sequence that is complementary to SEQ ID NO:1, at least one of the following:
  - (a) the N gene region of the SARS-associated corona virus genome; and
  - (b) the 3' non-coding region of the SARS-associated corona virus genome.

5. (Currently amended) A composition comprising one or more of the synthetic nucleic acid sequence of claim 4.
6. (Currently amended) A method for determining the presence or absence of SARS-associated corona virus in a biological sample ~~which comprises utilizing the synthetic nucleic acid sequence of claim 4 in a kit~~, the method comprising:
  - a) contacting nucleic acid from a biological sample with at least one primer which is a nucleic acid of claim 4,
  - b) subjecting the nucleic acid and the primer to amplification conditions, and
  - c) determining the presence or absence of amplification product, wherein the presence of amplification product indicates the presence of RNA associated with corona virus in the sample.
7. (Canceled)
8. (Currently Amended) A primer set for determining the presence or absence of SARS-associated corona virus in a biological sample, wherein the primer set comprises at least one synthetic nucleic acid sequence selected from the group consisting of:
  - (a) a synthetic nucleic acid sequence ~~comprising~~<sup>10-30</sup> consisting of from about 10 to about 30 consecutive nucleotides of ~~at least one of the following:~~
    - (i) ~~the N gene region of the SARS associated corona virus genome; and~~
    - (ii) ~~the 3' non coding region of the SARS associated corona virus genome~~  
SEQ ID NO:1; and
  - (b) a synthetic nucleic acid sequence ~~comprising~~<sup>10-30</sup> consisting of from about 10 to about 30 consecutive nucleotides of a nucleic acid sequence that is complementary to ~~at least one of the following:~~
    - (i) ~~the N gene region of the SARS associated corona virus genome; and~~

~~(ii) the 3' non-coding region of the SARS-associated corona virus genome~~

SEQ ID NO:1.

9. (Currently Amended) The primer set of claim 8, wherein the at least one synthetic nucleic acid sequence has a nucleotide sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, SEQ 1D NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ 1D NO: 7, SEQ 1D NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, and SEQ ID NO: 16, ~~and a fragment, variant, and derivative thereof.~~
10. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 2, ~~or a fragment, variant, or derivative thereof.~~
11. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 3, or a fragment, variant, or derivative thereof.
12. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 4, or a fragment, variant, or derivative thereof.
13. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 5, or a fragment, variant, or derivative thereof.
14. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 6, or a fragment, variant, or derivative thereof.
15. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 7, or a fragment, variant, or derivative thereof.

16. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 8, or a fragment, variant, or derivative thereof.
17. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 9, or a fragment, variant, or derivative thereof.
18. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 10, or a fragment, variant, or derivative thereof.
19. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 11, or a fragment, variant, or derivative thereof.
20. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 12, or a fragment, variant, or derivative thereof.
21. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 13, or a fragment, variant, or derivative thereof.
22. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 14, or a fragment, variant, or derivative thereof.
23. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 15, or a fragment, variant, or derivative thereof.

24. (Withdrawn) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 16, or a fragment, variant, or derivative thereof.

25. (Original) A composition comprising the primer set of claim 8.

26. (Currently Amended) A method for determining the presence or absence of SARS-associated corona virus in a biological sample ~~which comprises utilizing the primer set of claim 8 in a kit, the method comprising:~~

a) contacting nucleic acid from a biological sample with primer set of claim 8,

b) subjecting the nucleic acid and the primers to amplification conditions, and

c) determining the presence or absence of amplification product, wherein the presence of amplification product indicates the presence of RNA associated with corona virus in the sample.

27. (Currently Amended) A kit for determining the presence or absence of SARS-associated corona virus in a biological sample, comprising ~~at least one synthetic nucleic acid sequence and instructions for use, wherein the at least one synthetic nucleic acid sequence is selected from the group consisting of:~~

(a) ~~a nucleic acid sequence comprising 10-30 consecutive nucleotides of at least one of the following:~~

(i) ~~the N gene region of the SARS associated corona virus genome; and~~

(ii) ~~the 3' non-coding region of the SARS associated corona virus genome;~~

and

(b) ~~a nucleic acid sequence comprising 10-30 consecutive nucleotides of a nucleic acid sequence that is complementary to at least one of the following:~~

(i) ~~the N gene region of the SARS associated corona virus genome; and~~

(ii) ~~the 3' non coding region of the SARS associated corona virus genome~~

at least one of the synthetic nucleic acids of claim 1 or 4.

28. (Currently Amended) The kit of claim 27, wherein the at least one synthetic nucleic acid sequence has a nucleotide sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, and SEQ ID NO: 16, and a fragment, variant, and derivative thereof.
29. (Currently Amended) A kit for determining the presence or absence of SARS-associated corona virus in a biological sample, comprising:
  - (a) ~~a primer set comprising at least two synthetic nucleic acid sequences, wherein at least one of the at least two synthetic nucleic acid sequences is selected from the group consisting of:~~
    - (i) ~~a nucleic acid sequence comprising 10-30 consecutive nucleotides of at least one of the following:~~
      - (A) ~~the N gene region of the SARS associated corona virus genome; and~~
      - (B) ~~the 3' non coding region of the SARS associated corona virus genome; and~~
    - (ii) ~~a nucleic acid sequence comprising 10-30 consecutive nucleotides of a nucleic acid sequence that is complementary to at least one of the following:~~
      - (A) ~~the N gene region of the SARS associated corona virus genome; and~~
      - (B) ~~the 3' non coding region of the SARS associated corona virus genome; and~~

a primer set comprising at least two synthetic nucleic acid sequences, wherein at least one of the at least two synthetic nucleic acid sequences is selected from the synthetic nucleic acid of claims 1 or 4.

(b) ~~instructions for use.~~

30. (Currently Amended) The kit of claim 29, wherein the at least one nucleic acid sequence has a nucleotide sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, and SEQ ID NO: 16, ~~and a fragment, variant, and derivative thereof.~~
31. (Original) The kit of claim 29, further comprising:
  - (c) suitable PCR reagents; and
  - (d) optionally, a positive and/or negative control for determining the presence or absence of SARS-associated corona virus.
32. (Original) The kit of claim 31, wherein the PCR reagents include a thermostable DNA polymerase and dNTP solutions.
33. (Canceled)
34. (Currently Amended) The method of ~~claim 33 any one of claims 3, 6 or 26~~, wherein the biological sample is obtained from a subject suspected of having SARS.
35. (New) A composition comprising a mixture of at least two synthetic nucleotides of claim 1 or 4.
36. (New) A synthetic nucleic acid of any one of claims 1, 4 or 8, wherein the synthetic nucleic acid is linked to a fluorescent reporter.

37. (New) The method of any one of claims 3, 6 or 26, further comprising a synthetic nucleic acid linked to a fluorescent reporter.
38. (New) The methods of any one of claims 3, 6 or 26, wherein the presence of amplified nucleic acid in step c) can be determined by separating and visualizing the amplified nucleic acids by electrophoresis to obtain separate products, or by determining the amount of fluorescence after at least one amplification cycle.